DOCUMENT RESUME

ED 455 471 CG 031 064

AUTHOR	Dadds, Mark; Seinen, Anita; Roth, Janet; Harnett, Paul
TITLE	Early Intervention for Anxiety Disorders in Children and Adolescents. Clinical Approaches to Early Intervention in Child and Adolescent Mental Health, Volume 2.
INSTITUTION	Australian Early Intervention Network for Mental Health in Young People, Bedford Park, South Australia.
ISBN	ISBN-0-9577915-3-4
PUB DATE	2000-00-00
NOTE	71p.; For volume 1, see CG 031 063.
AVAILABLE FROM	Australian Early Intervention Network for Mental Health in Young People, c/o CAMHS Southern, Flinders Medical Center, Bedford Park, South Australia 5042. For full text: http://auseinet.flinders.edu.au.
PUB TYPE	Books (010) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Adolescents; *Anxiety; At Risk Persons; *Children; Counseling Techniques; *Early Intervention; Foreign Countries; *Guidelines; Mental Health Workers; National Norms; Outcomes of Treatment; Prevention; Program Development; Psychological Studies; Resilience (Personality)
IDENTIFIERS	*Anxiety Disorders; Australia

ABSTRACT

Recent studies have suggested that anxiety disorders in childhood may be prevented and treated with early intervention programs. It is essential that guidelines are available for health professionals to use in the development of these programs. Following an introductory chapter, chapter 2 explains the rationale for early intervention. Chapter 3 presents an overview of anxiety in children and adolescents and includes the nature, types, and prevalence of anxiety disorders. A discussion of the risk and protective factors for anxiety disorders is included in chapter 4. Chapter 5 reviews existing early intervention programs for anxiety disorders with children and adolescents. This is followed by a discussion of practical issues in chapter 6 and some steps in planning and implementing early intervention programs in chapter 7. (Contains 132 references.) (JDM)

Early intervention for anxiety disorders in children and adolescents

Clinical approaches to early intervention in child and adolescent mental health

Volume 2

The Australian Early Intervention Network for Mental Health in Young People

Clinical approaches to early intervention
in child and adolescent mental health

Volume 2

Series editors:
Robert Kosky, Anne O'Hanlon, Graham Martin and Cathy Davis
The University of Adelaide and Flinders University of South Australia

Early intervention for anxiety disorders in children and adolescents

Mark Dadds

Anita Seinen

Janet Roth

Paul Harnett

Griffith University
Queensland

The Australian Early Intervention Network for Mental Health in Young People

2000

ISBN 0 9577915 3 4

The opinions expressed in this document are those of the authors and are not necessarily those of the Commonwealth Department of Health and Aged Care.

This document is designed to provide information to assist decision making and is based on the best information at the time of publication.

This document provides a general guide to appropriate practice, to be followed only subject to the individual professional's judgement in each individual case.

A copy of this document can be downloaded from the AusEinet website:
http://auseinet.flinders.edu.au

Design and layout by Foundation Studios

The AusEinet project is funded by the Commonwealth Department of Health and Aged Care under the National Mental Health Strategy and the National Youth Suicide Prevention Strategy. The project was developed through collaboration between the Departments of Psychiatry of the Flinders University of South Australia and the University of Adelaide, under the joint management of Associate Professor Graham Martin MD and Professor Robert Kosky MD.

SUGGESTED CITATION

Dadds, M., Seinen, A., Roth, J. & Harnett, P. (2000). Early intervention for anxiety disorders in children and adolescents. Vol. 2 in R. Kosky, A. O'Hanlon, G. Martin & C. Davis (Series Eds.), *Clinical approaches to early intervention in child and adolescent mental health.* Adelaide: The Australian Early Intervention Network for Mental Health in Young People.

Clinical approaches to early intervention in child and adolescent mental health

Series editors:
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Foreword to series

There are now about three thousand people who form the Australian Early Intervention Network for Mental Health in Young People (AusEinet) developed since 1997. They include carers, consumers, mental health professionals, policy makers, teachers and others who are interested in the new developments in early intervention for the mental health of young people. The members of the network are linked by our website (http://auseinet.flinders.edu.au), our journal (AusEinetter), the seminars we held across Australia, the first International Conference held in Adelaide in 1999 and by the set of books and guides we have produced for them. The books have so far included two national stocktakes of prevention and early intervention programs in Australia, a comprehensive account of eight model early intervention projects which were subsidised by AusEinet and a general early intervention literature review. Details of these publications can be obtained from our website.

This current series deals with clinical approaches to early intervention for the mental health of young people. The AusEinet team asked some leading clinical researchers in Australia to review the evidence base for recent clinical approaches to early intervention in their particular fields of interest. Only a few mental health problems could be chosen to start the series. We are aware that there are research groups active in other areas and we hope to access their work at a later date.

We are also aware that few programs in the field have been well evaluated; certainly few reach Level I or II evidence, according to the standards recommended by the National Medical Health and Research Council in Australia (levels of evidence are

discussed in the series volumes). Consequently, we asked groups to consult with clinical experts and consumers to develop a consensus view on the best approach to practice in early intervention in their fields.

The volumes so far created for this series include clinical approaches to attention deficit hyperactivity disorder in preschool aged children, anxiety disorders, conduct problems, the perinatal period, and psychological adjustment to chronic conditions. Details of these volumes are available from the AusEinet website. A guide for delinquency will also become available on our website. The National Health and Medical Research Council (http://www.health.gov.au/nmhrc) has produced guidelines on depression in young people aged 13 to 20 years. AusEinet may look at clinical approaches specifically for early intervention in depression in children as well as young people in the future. Guidelines for early psychosis are available through the Early Psychosis Prevention and Intervention Centre (http://home.vicnet.net.au/~eppic/).

The clinical approaches recommended by the authors of the volumes in the series are the responsibility of the authors and naturally reflect their particular interests and those of their expert advisors. While the approaches outlined in this series do not necessarily reflect our views, we consider that it is important to open up a forum for information on early intervention for mental health and to allow our network access to some of the most recent scientific and clinical knowledge in the field. We hope that this series will help bridge the gap between research and practice.

The Editors

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Authors

Mark Dadds is Professor of Psychology, Director of Postgraduate Research Training, and Director of the Griffith Early Intervention Project in the School of Applied Psychology, Griffith University.

Anita Seinen is a Psychologist undertaking PhD studies in Clinical Psychology in the School of Applied Psychology, Griffith University.

Janet Roth is a Psychologist undertaking PhD studies in Early Intervention in the School of Applied Psychology, Griffith University.

Paul Harnett is a Project Officer for the Griffith Early Intervention Project and Psychologist in the School of Applied Psychology, Griffith University.

Expert Advisory Panel

Chapter 1
Introduction

Background

Recent studies have highlighted the possibility that anxiety disorders in childhood and early adolescence might be effectively prevented and treated by using a range of early intervention programs. By implementing early intervention programs for anxiety disorders we potentially avoid a high level of subjective distress on the part of children and their families and the negative long-term consequences of disruption to relationships, schooling, and vocational development. In addition, early intervention and prevention for anxiety problems has the potential to produce considerable cost-savings in terms of the need for treatment services. As a range of health professionals use and develop early intervention programs, it is imperative to have good practice guidelines for the development and implementation of such programs. Moreover, it is essential that such guidelines are developed by experts mindful of the most up-to-date findings in the international literature so that health professionals can benefit from the best available information.

The need for such guidelines was recognised by AusEinet, (the Australian Early Intervention Network for Mental Health in Young People) who commissioned the development of these guidelines. The primary objective of the guidelines is to encourage and aid mental health professionals and health planners to implement early intervention and prevention programs which have been found to offer the maximum likelihood of benefit and minimum harm whilst being acceptable in terms of cost. The guidelines also aim to:

- improve the resiliency of children at risk of developing anxiety disorders by improving the practice of health professionals and providing consumers with better information about treatment options;
- identify interventions that will ensure the best possible health outcomes for children at risk of developing anxiety disorders;

- provide evidence on the effectiveness of preventive interventions for childhood and adolescent anxiety disorders;
- broaden education of practitioners and the community;
- aid mental health professionals and health planners in selecting from the multitude of strategies that can be implemented in various settings across the developmental trajectory of the anxious person and;
- provide a reference point for ethical and accountable interventions which ensure the highest quality programs whilst being cost-effective and efficient.

The guidelines are concerned with the identification, early intervention and prevention of anxiety in children and adolescents. They contain systematically developed statements concerning the health care of anxiety in children and adolescents and present the scientific or other evidence upon which the statements are based. The guidelines present 'ideal' early intervention and prevention strategies for anxiety disorders in children and adolescents in Australia. They should not be taken to represent the definitive statement of the correct procedures to follow in the early intervention and prevention of anxiety in children and adolescents. Instead, they offer a general guide to be followed only when subject to the health professional's judgement in each case.

The views contained in this report are based upon the following sources of information:

- A narrative review of controlled research on the effects of early intervention in reducing anxiety disorders in children and adolescents;
- A survey of literature on currently used early intervention and prevention programs for anxiety disorders;
- The view of persons nominated as expert in the early intervention and prevention of anxiety disorders in children and adolescents.

To date, no evidence-based guidelines for the prevention and early intervention of anxiety disorders have been published. This may be due to the limited amount of research and programs which have been published in this area.

A review of the relevant scientific literature indicated that a comparison of the cost-effectiveness of different early intervention and prevention programs for anxiety disorders in children and adolescents was not available. In addition, the cost-effectiveness of prevention/early intervention compared to treating young people for anxiety disorders had not been estimated. However, in view of the prevalence of anxiety disorders in children and adolescents and given the negative long-term consequences, such as disruption to relationships, schooling, and vocational development, the cost-effectiveness of prevention and early intervention for anxiety disorders is likely to be very high.

Guidelines attempt to reflect existing knowledge at the time of publication. In order to maintain their validity, these documents will require revision and updating as new evidence from systematic reviews emerges.

The approach

The approach adopted in developing these guidelines was that recommended by the NHMRC in the second edition of the *Guidelines for the development and implementation of clinical practice guidelines* (NHMRC, 1999). The multidisciplinary panel included representatives from the following groups or disciplines: consumer movement, psychiatry, psychology, education and nursing. Members of the multidisciplinary panel reviewed literature in relevant areas and collected evidence from a variety of sources both overseas and in Australia. The current guidelines were then drafted after consideration of the best available evidence. In some areas there is strong evidence concerning the efficacy of an intervention or recommendation. However in most areas, there is little research on the quality of evidence concerning important issues, which indicates the need for further research.

The programs reviewed within this document are accompanied by a level of evidence rating so that the reader may judge the strength of evidence upon which the guidelines are based. The ratings for the level of evidence were based on the QCHOC adapted version of the US preventive Services Task Force rating scheme (NHMRC, 1999) as follows:

I Evidence obtained from a systematic review of all relevant randomised controlled trials.

II Evidence obtained from at least one properly designed randomised controlled trial.

III-1 Evidence obtained from well-designed pseudo-randomised controlled trials (alternate allocation or some other method).

III-2 Evidence obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case-control studies, or interrupted time series with a control group.

III-3 Evidence obtained from comparative studies with historical control, two or more single-arm studies, or interrupted time series without a parallel control group.

IV Evidence obtained from case series, either post-test or pre-test and post-test.

Target audience

The guidelines are intended for any practitioner with an interest in preventing anxiety disorders in children and adolescents. This may include psychologists, social workers, mental health nurses and community and other generalist nurses, school guidance officers, teachers and other members of the education department and general practitioners.

These guidelines may be employed in a range of settings such as schools and mental health services. Consumers (young people and/or their families and friends) may be interested in consulting these guidelines, however a separate consumer facts sheet is available.

The guidelines begin with an overview of the definitions and terms for early intervention and prevention. Chapter 3 presents an overview of anxiety in children and adolescents, and includes the nature of anxiety disorders, types of anxiety disorders and the prevalence of anxiety disorders. This is followed by a discussion of the risk and protective factors for anxiety disorders in Chapter 4. Chapter 5

reviews existing early intervention programs for anxiety disorders with children and adolescents. This is followed by a discussion of pragmatic issues in Chapter 6 and some practical steps in planning and implementing early intervention programs in Chapter 7.

Chapter 2

What is prevention and early intervention?

General principles of prevention and early intervention for anxiety disorders

Over the last two decades the promotion of mental health has become an area of increasing research and a major influence nation-wide and world-wide within health organisations. In contrast, the cost to communities of mental illness, and in particular anxiety disorders, is only beginning to receive widespread acknowledgment. The distress, negative long-term consequences to social and vocational functioning, and financial burden on individuals, families, and the health care system, provide a strong case for preventive action. Before implementing such programs there is an urgent need for adequately evaluated community prevention programs to address the promotion of mental health.

While treatment concentrates on alleviating problems, disorders or disease and their consequences, prevention and early intervention programs aim at empowering individuals to use their existing strengths and competencies as well as gaining new skills, before the problem becomes serious and entrenched. Prevention and early intervention programs encompass a comprehensive system which takes into consideration both risk and protective factors. Prevention can either reduce the influence of risk, or enhance and develop protective factors, in order to build resilience. The identification of risk and protective factors serves to guide not only desired outcome, but also priorities for designing prevention strategies. While there is a growing body of research addressing externalising problems such as conduct disorder, internalising problems such as anxiety have received less attention. Recently however, there has been an accumulation of empirical evidence identifying risk and protective factors in the development of childhood anxiety problems.

What is early intervention and prevention?

Early intervention programs are distinguished from prevention programs, as early intervention programs target individuals at risk of developing a disorder or showing early or mild signs of the problem. On the other hand, prevention programs in the true sense do not require that an individual is either at risk or showing any signs of a disorder. As it is common to hear terms such as 'primary prevention' and 'universal programs' it is useful to be clear where these terms come from and to what they refer. Understanding the difference between the types of prevention program is also important as they each involve a different set of procedures for screening and evaluation.

Traditionally, the system for describing prevention programs examined prevention from the perspective of onset of disorder and distinguished between primary, secondary, and tertiary prevention (Caplan, 1964). ***Primary prevention*** refers to interventions that target individuals before they show any signs of a disorder. The focus is on preventing the development of a disorder. ***Secondary prevention*** refers to interventions that target individuals showing symptoms of a disorder who do not meet diagnostic criteria for a disorder, but may go on to display the full blown disorder. The focus is on ensuring the problems do not become more serious. ***Tertiary prevention***, or tertiary intervention, refers to interventions targeting individuals with a diagnosed condition. The focus of tertiary interventions is to prevent suffering by limiting the intensity of the problem, limiting the duration of an episode of the problem, increasing the interval between episodes (eg. between depressive episodes, or the frequency and/or intensity of panic attacks) and preventing relapse.

A second and subsequent model organises prevention initiatives based upon sample catchment boundaries within at-risk populations (Gordon, 1983; Mrazek & Haggerty, 1994). This classification system has been described by the Institute of Medicine (1996) and distinguishes three types of prevention programs: universal, selective and indicated (see Table 1 for a description of these three types of prevention program). These models may be useful in determining a method for selecting participants for a program. Should all children be included, only those identified to be at risk, or those individuals with some signs or symptoms? There is no simple

Table 1. Institute of Medicine classification of prevention programs

Universal programs

Universal programs include all participants in a particular setting in a program, for example all children in Year 9 of a school. As universal programs are offered to all students, there is the potential for these programs to become part of the school curriculum.

Advantages:

- Avoids the need for screening of level of emotional problems or risk status
- Avoids the possibility of any stigmatization through labelling

Disadvantages:

- Including all potential children can result in disruptive or clearly unmotivated participants in the program. Some form of screening to prevent this may still be required.

Before deciding on a universal program consider the following:-

- Is it practical to deliver the program to all of the potential participants, keeping in mind that the programs are run in groups of 8-10 children and involve one period a week for 10 or 11 weeks.
- If there are disruptive children and/or children with learning difficulties that could limit their ability to benefit from the program, how will these children be identified?
- Are there likely to be children with serious emotional problems that may require special, one-to-one help with their problems? If so, what back-up services will be available to help these children?

Settings in which a universal program is most suited

- Settings in which it is possible to deliver the program to all children in a target group.
- These settings will be those in which there are small numbers of children or where there are the resources to run the program repeatedly

Selective programs

Selective programs select children who are considered to be at risk of developing a disorder, based on biological and psychosocial factors. For example, children of depressed parents or children who have experienced a trauma may be selected on the basis that their experiences place them at risk of developing anxiety problems. Major risk factors that can be used for screening at-risk children include family dysfunction, behavioral inhibition, shyness, and parental psychopathology.

Advantages:

- Targets children and adolescents at greatest risk of developing emotional disorder.
- Recruits less participants than a universal program, therefore may be more practical in settings with large numbers of children (e.g. a large urban school).
- Selective programs can be useful when it is known that the children and adolescents in a particular setting have high levels of risk or few protective factors (e.g. in communities with high rates of family dysfunction).

Disadvantages:

- Requires the existence of sensitive and reliable screening procedures to identify the presence of risk factors and absence of protective factors. Existing instruments developed in urban settings may not be applicable in other settings or with all cultural groups.
- Runs the risk of stigmatization through labelling. Requires ethical issues to be thought through and dealt with sensitively.

Before deciding on a selective program consider the following:-

- Selecting children at risk increases the likelihood of identifying children with serious emotional problems that may require special, one-to-one help with their problems. What backup services will be available to help these children?
- As screening for risk factors is not perfect, there is the possibility of including children in the program who are not actually at risk and excluding children from the program who are at risk.

Indicated programs

Indicated programs select children who are displaying mild signs of a problem but do not fulfil the criteria for a disorder. Like selective programs, indicated programs involve a screening procedure prior to the intervention. They have the advantage of targeting fewer children known to have greatest need for the program.

Advantages:

- Intervention is targeted at children and adolescents showing mild to moderate symptoms of emotional distress and, therefore are clearly in need of the program.
- As only the most needy individuals are selected, indicated programs recruit less participants and are often more practical in settings with large numbers of children (e.g. a large urban school).

Disadvantages:

- As screening involves identification of emotional problems, it is necessary to use clinical assessment instruments. As with instruments to identify risk factors, clinical assessment procedures may not be applicable in all settings with all cultural groups.
- Runs the risk of stigmatization through labelling, therefore requires ethical issues to be thought through and dealt with sensitively.

Before deciding on an indicated program consider the following:-

- Selecting children increases the likelihood of identifying children with serious emotional problems who may require special, one-to-one help with their problems. What backup services will be available to help these children?
- As screening for emotional problems is not perfect, there is the possibility of including children in the program who do not actually show signs of a disorder or excluding children who do have emotional disorder.

answer to this question, and in practice the model used may include elements of each. Table 1 also provides guidelines for determining the most appropriate type of program for your setting.

As can be seen in Table 1 there are advantages and disadvantages associated with the use of different types of intervention. For example, an advantage of universal programs is that no selection procedures are needed and thus stigmatisation is unlikely to result. However, such programs are likely to be more expensive from both a financial and a human resource perspective. Importantly, and of ethical concern, without careful and thoughtful design a universal program risks the possibility of doing harm to healthy people. Shochet, Dadds, Holland, et al. (in press) have argued that a guiding principle of any intervention must be to quarantine harm. Especially in initial trials when outcomes of prevention initiatives remain uncertain, it is imperative that above all, people are not worse off as a result of participating in the program. For example, concern is often expressed about possible iatriogenic effects of suicide prevention programs when applied universally to young people.

Indicated or selected programs target individuals most likely to be in need of assistance, thus optimising the use of financial and human resources. Indicated or selected programs increase the probability of identifying and intervening with individuals who otherwise may have gone unnoticed and progressed to a more severe level of dysfunction. Within some contexts, indicated and selected programs are termed 'early intervention' especially if some level of dysfunction already exists within the sample. However, the selection procedures associated with selected and indicated programs carry the risk of stigmatising or labelling individuals.

Main aims of early intervention programs

The rationale for early intervention programs is that individuals who are emotionally resilient are less likely to develop anxiety disorders. Early intervention programs for anxiety disorders aim to increase the individual's resilience, social confidence, regulation of emotion, and their ability to anticipate and solve problems. These skills help people feel confident, maintain an optimistic view of the world, and deal with the complex problems of modern life. The ability to engage others socially

increases the social support available to an individual, and helps to maintain that person's confidence and optimism. As long as this is the case, it is less likely that anxiety disorders will develop.

Advantages of prevention programs over traditional forms of intervention include:

- In the short term there may be a reduction in new cases of an anxiety disorder developing, i.e. a reduction in the incidence of the anxiety disorders;
- In the longer term, the effect of reducing the incidence of new cases is a reduction in the proportion of the population displaying anxiety disorders, i.e. a reduction in the prevalence of the disorder;
- A lowered prevalence of diagnosed anxiety disorders in society reduces the demand on tertiary services;
- Effective early intervention programs prevent a great deal of suffering for individuals and their families;
- As early intervention programs target problems before they are serious, the interventions do not need to be as intensive as traditional treatments, making them cost-effective.

Criteria for effective prevention and early intervention programs

Recently Spence (1994, 1996, in press) outlined several prerequisites for effective prevention. These included:

- An empirically based and tested model of the aetiology of the problem which identifies risk and protective factors;
- A reliable and valid method of identifying children at risk;
- Effective methods for reducing risk and enhancing protective factors, and;
- The opportunity to apply these methods in practice.

Spence (in press) indicated these criteria have been met by research in the prevention of child anxiety disorders. There is a great deal of evidence to demonstrate the risk and protective factors associated with the aetiology of child anxiety. There are reliable

and valid methods to identify children at risk and there is convincing evidence to show that identified risk and protective factors are amenable to change through active intervention. There are many opportunities to apply preventive interventions to children at risk through childcare and education setting as well as mental health clinics (Spence, in press). Hence, it appears that enough information is known about anxiety disorders to develop early intervention and prevention programs which take into account these risk factors. But how would one develop such a program?

A number of suggestions for developing prevention and early intervention programs have been formulated by Simeonsson (1994). Like Spence (in press), Simeonsson (1994) stated that to develop a program one must begin with clear understanding of risk factors, protective factors, and characteristics of the targeted population, which informs the formulation of the prevention program. When trialing the program, it was recommended that a randomised controlled trial within a longitudinal study be utilised in order to investigate the short and long term effects of the program. Finally, there must be adequate monitoring of the implementation and evaluation of outcomes of the prevention program which will provide a guide for future development.

These guidelines focus on early intervention for anxiety disorders. Thus, the focus is on programs for children and adolescents who are manifesting early signs of anxiety problems but who have not developed a diagnosable anxiety disorder. In the next section, the nature and developmental course of anxiety problems and disorders are reviewed.

Chapter 3

Anxiety Disorders in Children

The nature of anxiety disorders in children

Anxiety has been described as "a dysphoric, aversive feeling, similar to fear, that arises without any obvious threat" (Miller, 1983, p.338). Anxiety is made up of: ***physiological*** symptoms (e.g. sweaty palms, 'butterflies' in the stomach), ***behavioural*** signs (e.g. avoidance) and ***cognitive*** components (e.g. "I'm going to fail and everyone will laugh at me").

Children and adolescents who are anxious may experience the following symptoms:

- Unrealistic, and excessive worry
- Continuous need for reassurance
- Over-concern about past or future events
- Over-concern about performance
- Marked self-consciousness
- Complaints with no physical cause
- Restlessness or feeling 'keyed up' or 'on edge'
- Fatigue
- Difficulty concentrating
- Irritability
- Distress on separation from parents
- School refusal
- Panic attacks
- Avoidance of situations
- Distress in social situations
- Phobia
- Obsessions or compulsions

Fear and anxiety are a common part of the human condition. They are typically transitory states and in many situations they are adaptive, in that they signal danger. Anxiety is conceptualised as varying quantitatively along a continuum. The degree of distress, impairment of functioning and/or interference with daily life decides what is 'normal' and adaptive and what is problematic. Difficulties arise in deciding where normal anxiety ends, and clinical anxiety begins. This is especially the case

with children. The rate of human development is greater during childhood and adolescence than at other times of life. Knowledge concerning 'normal' fears and anxieties at each developmental stage is vital when attempting to ascertain whether or not a child suffers from an anxiety disorder. Anxiety that is normal for a pre-school aged child may be extreme if experienced by an adolescent.

As a consequence of children's developmental experiences and their increasing cognitive abilities, the content of their fears and anxieties changes over time. The focus generally shifts with age from concerning concrete, external things to internalised, abstract anxieties (Koplewicz, 1996). Thus, infants tend to fear strangers, loud noises, and unexpected objects, while children fear separation from their parents, animals, loud noises the dark and the toilet. Between the ages of four and six, predominant fears include kidnappers, robbers, ghosts and monsters. At six years, fears of bodily injury, death and failure develop. These may continue into early adolescence. At ten or eleven years of age, fears regarding social comparison, physical appearance, personal conduct and school examinations may predominate.

Types of anxiety disorders in childhood

The main categories of anxiety disorder from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (American Psychiatric Association, 1994) are described below. For more detail on the symptoms of each of these disorders and for diagnostic criteria refer to the DSM-IV (American Psychiatric Association, 1994).

Separation anxiety disorder occurs in 2% to 4% of children and is the most common anxiety disorder found in children (Anderson, Williams, McGee, et al., 1987; Bowen, Offord, Boyel, 1990). It is defined as "developmentally inappropriate and excessive anxiety regarding separation from home or significant figures in a child's life". The child's reaction is beyond that expected for his or her developmental level and may at times approach the level of panic. Symptoms may include: apprehension about harm occuring to loved ones, reluctance to go to school or away from home, nightmares involving separation, inability to be alone, or repeated somatic complaints. In order to meet the criteria for DSM-IV diagnosis, children must show a minimum of three symptoms within a four week period.

Generalised anxiety disorder is defined as "exaggerated or uncontrollable anxiety or worry about events". It is characterised by self-consciousness, excessive worry about future events (eg. going to see a doctor), or about past events (eg. something the person said) and anxiety about performance and competence.

A ***specific phobia*** is characterised by marked fear of a specific feared object or situation which seem out of place and exaggerated beyond usual limits. The intense anxiety leads to avoidance behaviours. Exposure to the phobic stimulus may result in a panic attack. Specific phobias are differentiated from normal fears in that the phobic reaction is excessive, out of proportion to the demands of the situation and maladaptive (Silverman & Rabian, 1993).

Social phobia is characterised by anxiety when exposed to social or performance situations (eg. going to parties, speaking in front of a group). Those with social phobia will avoid feared situations or, if necessary, endure them with intense anxiety.

A ***panic attack*** is a discrete period in which there is a sudden onset of intense apprehension, fearfulness, or terror, often associated with feelings of impending doom. These feelings are usually accompanied by some physical symptoms such as palpitations, chest pain or discomfort, difficulty breathing, and choking or smothering sensations. The presence of recurrent panic attacks, as well as apprehension about future attacks, is called ***Panic Disorder***.

Agoraphobia is essentially anxiety about, or avoidance of, places. These places/ situations often include being outside the home alone, being in a crowd, travelling in a bus or being on a bridge.

Obsessive-compulsive disorder is characterised by obsessions (persistent thoughts, impulses or images that are intrusive and distressing) and compulsions (repetitive behaviours, eg. hand washing). These symptoms cause marked distress, occur for more than one hour a day and interfere with the person's normal routine. Children or adolescents may experience obsessions and compulsions without comprehending the excessive and unreasonable nature of the symptoms. Obsessions may centre on themes of personal contamination by germs, on harm befalling loved ones, on violent images, or on sexual or religious matters. Doubting everything is a not uncommon feature. Compulsions involving repeating, ordering, arranging, checking, watching or ritual, are common.

Posttraumatic stress disorder is characterised by persistent re-experiencing of traumatic events, accompanied by symptoms of arousal. People who have posttraumatic stress disorder will take measures to avoid exposure to stimuli which they feel are associated with the trauma.

Acute stress disorder is characterised by symptoms similar to those found in posttraumatic stress disorder, but occur immediately following the event.

Prevalence and course

Surveys of children and adolescents in community populations, using self-report questionnaires, indicate that anxiety disorders are the most common childhood emotional disorders. Twelve month prevalence rates range from 17% to 21%; about 8% may require treatment (Anderson, Williams, McGee & Silva, 1987; Kashani & Orvaschel, 1988; Bernstein & Bochardt, 1991; Kashani & Orvaschel, 1990; Kashani & Orvaschel, 1998; Spence & Dadds, 1996).

The course of anxiety disorders tends to vary. Phobic disorders usually have onset early in life. Panic disorder peaks in late adolescence, continues through early and middle adulthood, but is rare after 40 years. The onset of generalised anxiety disorder occurs across all age groups. Social phobia most commonly occurs during adolescence or early adulthood, and is often preceded by childhood shyness. Obsessive-compulsive disorder has an early onset with approximately 50% of cases occurring before 20 years of age.

Anxiety in childhood is often regarded as a passing complaint (Keller, Lavori, Wunder, et al., 1992). Unfortunately, this is not the case for a significant proportion of all children and adolescents and their prognosis, if they do not receive treatment, is much less encouraging than has previously been thought. For instance, 70% of children aged 6 to 12 years who had been diagnosed with overanxious disorder, were found to have retained this diagnosis at 2-year follow up (Pfeffer, Lipkins, Plutchnik & Mizruchi, 1988). Research by Dadds et al. (1999) demonstrated that approximately 50% of children in a community sample who met diagnostic criteria for an anxiety disorder still exhibited an anxiety disorder two years later.

Keller et al (1992) assessed past and present psychopathology in 275 children and adolescents aged 6 to 19 years. Fourteen percent of the children had a history of anxiety disorder and, of these children, 66% met criteria for an anxiety disorder at the time of assessment. The average duration of the disorder to the time of the interview was 4 years, but it was estimated that 46% of the children with an anxiety disorder would still be ill 8 years after the onset of the disorder (Keller et al., 1992).

The chronicity of childhood anxiety disorders would seem to be due to their association with social problems, such as dependency on adults in social situations, poor problem solving skills, unpopularity and poor interaction with peers (Kashani & Orvaschel, 1990; Messer & Beidel, 1994; Panella & Henggeler, 1986; Rubin & Clark, 1983; Strauss, Frame & Forehand, 1987). In clinical samples, anxious children are less successful in peer relationships than their non-referred counterparts (Edelbrock, 1985; Puig-Antich, Lukens, Davies, et al., 1985). As a whole, this research indicates that anxiety in children and adolescents is associated with significant psychosocial difficulties.

There is considerable evidence that the onset of many adult psychological problems have their origins in childhood and adolescence and this is particularly the case for anxiety disorders (Mattison, 1992; Stemberger, Turner, Beidel & Calhoun, 1995). This has been demonstrated by a number of longitudinal surveys (see also Bernstein & Borchardt, 1991, McGee, Feehan, Partridge, et al., 1990; Rubin, 1993) which provide evidence that childhood disorders greatly increase the risk of similar disorders occurring in adolescence. Adults with panic disorder and a history of childhood anxiety had greater agoraphobic avoidance (Pollock, Rosenbaum, Marrs, Miller & Beiderman, 1995). They developed panic attacks and phobic avoidance at a younger age than those without a history of childhood anxiety (Otto, Pollock, Rosenbaum, et al., 1994).

Research also implicates childhood anxiety disorder as a risk factor in the development of other forms of child psychopathology, such as mood disorders & behavioural problems (Bell-Dolan & Brazeal, 1993, Cole, Peeke, Martin, Truglio & Seroczynski, 1998; Strauss, Last, Hersen et al, 1988).

Studies have found relatively high rates (up to 45%) of comorbid anxiety disorders with depression in adolescence (Kovacs, Gatsonis, Paulauskas & Richards, 1989;

Schatzberg, Samson, Rothschild, Bond, & Regier, 1998) and disruptive behaviour disorder (Anderson et al., 1987; Kashani & Orvaschel, 1990; McGee et al., 1990). In approximately two-thirds of cases of major depressive disorder, anxiety preceded the depression and persisted after it (Kovacs et al., 1989). Phobias appear to be risk factors for later development of major depression (Schatzberg et al., 1998), whilst panic disorder has been associated with a high risk of attempted and completed suicides (Johnson, Weissman, & Klerman, 1992). Longitudinal research corroborates the finding that anxious children are at risk to become depressed later in adolescence (Cole et al., 1998).

Chapter 4

Risk and Protective Factors

From a public health perspective, the modification of risk factors and the enhancement of protective factors has the potential to reduce the incidence and prevalence of anxiety disorders in children and adolescents. ***Risk factors*** can be defined as characteristic variables which, if present for a particular individual, increase the likelihood that this individual, rather than another, will develop the disorder (Mrazek & Haggerty, 1994). In general, the risk factors are associated with the disorder and are present before the disorder develops. ***Protective factors*** are thought to modify the influence of risk factors by helping, improving or altering a person's response to some environmental hazard (Rutter, 1985; Mrazek & Haggerty, 1994). Like risk factors, protective factors exist within individuals, families and communities. Spence and Dadds (1996) consider that there is sufficient evidence to identify risk and protective factors for the development of childhood anxiety disorders.

Risk factors

A host of explanations for the development of anxiety disorders have been put forward. These include biological predispositions (eg. Biederman, Rosenbaum, Bolduc, Faraone, & Hirshfelf, 1991; Kagan, Reznick, & Snidman, 1988a), familial transmission and learning in the family (Beidel & Turner, 1997; Dumas & LaFreniere, 1993; Turner, Beidel, & Costello, 1987; Weissman, Leckman, Merikangas, Gammon, & Prusoff, 1984) and social influences (Asendorph, 1991; 1993; Beidel & Turner, 1997; Rubin, 1993). The most salient risk factors emerging in the literature are temperamental predispositions to shyness (Kagan et al., 1988b), parental anxiety or depressive problems (Biederman et al., 1991; Mancini, vanAmeringen, Szatmari, Fugere, & Boyle, 1996; Turner et al., 1987), and exposure to traumatic environmental events.

At present there are several lines of inquiry that might shed light on a possible biological basis of anxiety. A review by Rutter and colleagues (1990) of ***inheritance*** studies indicated that a familial loading is evident for adult anxiety disorders. However, it is impossible to discern from the available evidence whether transmission is via genetic or environmental factors. For childhood anxiety disorders, the picture is even less clear and less adequately researched. Research has found anxious children are more likely to have anxious parents than non-anxious children (Last, Hersen, Kazdin, Francis & Grubb, 1987) and studies show anxious parents are likely to have anxious children (Turner, Beidel & Costello, 1987). These studies, however, do not indicate the relative contribution of genetic and environmental influences. A recent study by Thapar and McGuffin (1995) provided some insight into the extent of genetic influences, with heritability estimates of approximately 40-50% being found.

If heritability is important, exactly what is inherited? Kagan et al. (1988a) argue that genetic factors influence a child's initial behavioural reaction to unfamiliar events or people, that is, their ***temperament***. These behaviours remain stable over time, independent of social class and intelligence test scores. They termed this relatively stable style 'behavioural inhibition'. When it is operationalised as approach/interaction versus avoidance/distress in response to novel stimuli, the construct of behavioural inhibition is readily amenable to direct observation (Plomin & Stocker, 1989). Characteristic features of behavioural inhibition include: initial timidity, shyness, and emotional restraint when exposed to unfamiliar people, places or contexts (Asendorf, 1993).

Children who show stable temperament of behavioural inhibition are more likely to develop anxiety disorders in childhood (Biederman, Rosenbaum, Bolduc-Murphy, et al., 1993; Rosenbaum, Beiderman, Bolduc, et al., 1993). In a longitudinal study, Gest (1997) has shown that behavioural inhibition measured at 8 to 12 years is predictive of social and emotional problems in adulthood. Children who had been identified as behaviourally inhibited were more likely to still be living with their parents in adulthood. In a 3-year follow up of children with and without behavioural inhibition, Beiderman et al. (1993) found that children who fit the descriptors of inhibited (20%), were more likely to develop anxiety disorders than children who were uninhibited (0%).

Similar to behavioural inhibition is Rubin's concept of reticence (Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Rubin, 1993; Rubin & Asendorph, 1993). Reticence refers to the behaviour of children who are unoccupied onlookers to the activities of their peers, a form of social isolation. Asendorph (1993) interpreted reticent behaviour as an approach/avoidance conflict - wanting to join in, but stopped by fears. This behaviour is associated with anxiety and wariness (Asendorph, 1991). Reticent children cope with unfamiliar situations by withdrawal. Social withdrawal is stable over time, and when associated with negative self-appraisal, is predictive of internalising difficulties in early adolescence (Rubin & Asendorph, 1993). Coplan and Rubin (1998) conclude that reticence may be "a marker variable for social fear, anxiety and internalising problems".

Rubin's concept of reticence and Kagan's concept of behavioural inhibition share many similar behavioural characteristics, and appear to describe the same temperamental trait. A variety of terms have become associated with these concepts: shy, wary, hovering, approach-avoidance conflict, withdrawn, inhibited, isolated. As a stable trait, it is marked by unoccupied-onlooking behaviour in novel settings, typically referred to as shyness. Behaviourally inhibited and reticent children are at risk for later maladjustment difficulties in late childhood (Kagan, Reznick, Snidman, Gibbons, & Johnson, 1988), adolescence (Kagan, 1997; Rubin & Stewart, 1996), and adulthood (Gest, 1997). When socially non-interactive children experience concurrent negative self-perceptions and dependency this is predictive of internalising problems in adolescence (Rubin, Coplan, Fox, & Calkins, 1995).

It should be noted that a large proportion of behaviourally inhibited children did not develop any form of anxiety disorder. Environmental factors are likely to play an important part in determining the development of anxiety disorders.

Families show ***intergenerational patterns*** of psychiatric disorder (Beidel & Turner, 1997; Biederman et al., 1991; Mancini et al., 1996; Turner et al., 1987; Weissman et al., 1984). However, while parental psychiatric disorders place their children at risk of developing some disorder, it is not necessarily the same disorder as their parent's. Anxious children are more likely to have anxious parents, although depression in parents has been linked to anxiety in children (Beidel & Turner, 1997; Kovacs et al., 1989). Children of parents with social phobia or depression/panic disorder seem

particularly at risk of developing an anxiety disorder (Mancini et al., 1996; Weissman et al., 1984).

Anxiety states in children can be associated with exposure to ***negative life events***. There is substantial evidence to demonstrate elevated rates of anxiety disorders following natural disasters such as earthquakes, bushfires and violent storms (e.g. Dollinger, O'Donnell & Stanely, 1984). The rates of occurrence of stressful experiences have been found to be greater amongst anxious children compared to controls (Benjamin, Costello & Warren, 1990; Goodyer & Altham, 1991).

On their own, stressful life events do not provide a full explanation for the development of anxiety disorders. Research has found that increased occurrence of environmental stressors appear to precede the onset of nearly all psychiatric and most physical illnesses (Goodyer, 1990). Many anxious children do not experience elevated rates of negative life events, and many children survive trauma without clinically significant psychological problems (Goodyer, Wright & Altham, 1990).

The effects of environmental stresses are mediated through their effects on parent-child relations. McFarlane (1987) reported that the best predictor of post-traumatic phenomena in children following a bushfire disaster was the mother's response to the event. That is, mothers who were the most anxious and overprotective following the fire tended to have children who exhibited the most post-traumatic symptoms. Deleterious effects of divorce on children are associated with changes in daily routine, discipline practices and parent-child communication (Emery, 1982). Anxious parental behaviour has been found to influence the degree of distress shown by children during painful medical procedures (Bush, Melamed, Sheras & Greenbaum, 1986; Jacobsen, Manne, Garfinkle & Schorr, 1990).

It is likely that some ***family environments*** could be characterised as low in sociability and/or high in shyness. Support for this view comes from work by Bruch and colleagues (Bruch, 1989; Bruch & Heimberg, 1994) using retrospective reports of family life from adults diagnosed with social phobia. These people recall their families as seeking to isolate them from ordinary social experiences. Daniels and Plomin (1985) found shyness in infants is positively related to low sociability in families, highlighting the importance of environmental influences in the development of anxiety.

A recent study by Barrett, Dadds, and Rapee (1996a) indicated that parents of anxious children differ from other parents in terms of the way they encourage and teach their children to respond to ambiguous threat cues. Barrett et al. (1996a) demonstrated that anxious children and their parents make relatively high numbers of threat interpretations and, as a result, often choose to avoid solutions when faced with ambiguous, hypothetical social problems. For example, when families were asked to discuss how their child should deal with social cues, the likelihood that anxious children would devise an avoidant solution increased after the family discussion. In non-anxious comparison children, this effect was not found (Barrett et al., 1996a). In a follow-up, Dadds, Barrett, Rapee and Ryan (1996) analysed the contingent stream of family behaviours that had been videotaped in the family discussions. Results showed that parents of anxious children were more likely to reciprocate avoidant solutions and less likely to encourage prosocial solutions than parents of non-anxious children. Thus, the family processes appear to facilitate the child's vulnerabilities to anxious avoidance (Spence & Dadds, 1996).

A recent review of child rearing styles by Rapee (1997) points to a strong association between maternal control and anxiety. Krohne and Hock (1991) found that mothers of highly anxious girls were judged by independent observers to be more restrictive than were mothers of low-anxious girls. Krohne and Hock (1991) suggested that parental over-control tends to interfere with children's acquisition of effective problem-solving skills, resulting in failure to learn to deal successfully with stressful life experiences. Similarly, Dumas, LaFreniere and Serketich (1995) observed parent-child interactions, noting that anxious dyads were characterised by relatively high parental control and avoidance. Rapee (1997) suggests that maternal overprotection not only conveys the perception to the child of the continual presence of threat and danger, but also restricts the child's opportunities to develop successful coping mechanisms. It may prevent the child from developing more optimistic and realistic appraisals of the world.

Another proposed risk factor for anxiety disorders is ***anxious attachment style***. Attachment theory (Bowlby, 1971) proposes that our early interaction with parents or significant caregivers strongly influences our childhood and adult attachment styles. The attachment style of parents in turn influences the reaction of infants and

children to novel situations, people and objects. A number of strategies for measuring attachment processes have been developed, including observational measures of parent-infant bonds (Ainsworth, 1989) and self-report and structured interview measures (Main, 1996). Essentially, attachment theory stresses the development of secure versus insecure relations between parents and children as protective or risk factors in the aetiology of emotional disorders (Main, 1996). It is thought that relations with the primary caregiver are reflected in children's subsequent interactions with peers and others. Manifestations of insecure attachment include avoidant (eg. avoiding intimate contact) and anxious/ambivalent styles (eg. distress at separation, clinging, failure to show independent exploration).

One of the most comprehensive studies to date on attachment confirmed that infants who were anxiously/ambivalently attached in infancy were more likely to develop anxiety disorders during childhood and adolescence than infants who were securely attached. Warren et al. (1997) assessed 172 children at 12 months of age and followed up at 17.5 years of age. A pattern of anxious/ambivalent attachment at 12 months significantly predicted child/adolescent anxiety disorders.

Such results are certainly appealing, yet, it has generally been difficult to establish any clear links between attachment processes and specific forms of psychopathology (see van Ijzendoorn & Bakermans-Kranenburg, 1996).

From a theoretical standpoint, it has recently been suggested that attachment processes and social learning processes, when operating with a severely inhibited or anxious child, can become locked together in a vicious cycle that may maintain and magnify anxious responding. Dadds and Roth (in press) propose that inhibited children are likely to place excessive demands on parents for soothing and comfort. Initially these demands are likely to be responded to by seeking to protect and soothe the child. Over time, however, insecure attachment may develop between the child and the parent, as the child's demands for soothing extend beyond the parental limits of availability, and the child is met with rejection or attempts to push him or her towards independence. Research by Fox and Calkins (1993) demonstrated how the parent's attempts to push the child away resulted in further stress in the child and an increase in demanding. If the child then escalates demands, the parent is likely

to be trapped into reinforcing this escalation by once again attempting to soothe the child and stop the unpleasant demands. Insecure attachments can drive a pattern of clinging and dependency on the part of the child that becomes self-perpetuating (Patterson, 1982).

Protective factors

Knowledge of protective factors is particularly important for the content of preventive interventions and effective treatment, but in comparison to the evidence relating to risk factors of anxiety disorders, our understanding of protective factors is slim.

The ability to succeed in the face of challenges is referred to as ***resilience***. A number of factors have been identified which promote resilience and these include: an active stance toward life, a positive relationship with a significant adult, and persistence (Demos, 1989; Rutter, 1988; Werner, 1993; Wyman et al., 1993). Longitudinal research by Demos (1989) suggests that when children are supported in their efforts at mastery and when they experience secure parent-child attachments, children learn to maintain an active stance toward life and persist in the face of difficulty.

Positive future expectations also promote resilience (Demos, 1989; Werner, 1993; Wyman, Cowen, Work, & Kerley, 1993). Children in severely disadvantaged situations could develop positive future expectations if they had the benefit of interacting with at least one significant adult who responded supportively to the child's efforts and abilities (Wyman et al., 1993).

Roth and Dadds (1999b) proposed that the development of positive future expectations may be a central mechanism in the prevention of internalising disorders, such as anxiety. Outcome expectancy models of anxiety postulate that humans develop an expectation of outcome based on a variety of sources of information, including the situation, socially and verbally transmitted information and existing beliefs (Davey, 1992). Hence, existing beliefs in highly anxious persons tend to lead to an overestimation of threat and an underestimation of coping resources. Roth and Dadds (1999b) proposed that children who tended to behave anxiously have internalised beliefs about the inadequacy of their ability to cope with, or influence situations. These beliefs have most likely developed in interaction with their primary

caregivers. That is, children who have a temperamental tendency towards inhibition, and receive messages from caregivers who support this tendency, are likely to develop negative future expectations (Roth & Dadds, 1999b).

Children who later develop internalising disorders, such as anxiety or depression, have not developed positive future expectations and may not have developed a sense of control in the events of their lives. These children learn either aggression or avoidance to cope with challenges (Asendorph, 1991; Patterson, 1982). Anxious children tend to become avoidant, and eventually may develop a sense of incompetence or helplessness in the face of challenges. Most anxiety problems are characterised by negative expectations about specific situations (eg. social situations, public places). However, they may be more diffuse, as in generalised anxiety disorder, or global, so that hopelessness and depression develop.

In order to develop a sense of self-efficacy and positive future expectations, the development of ***problem solving skills*** may be useful (Shure & Spivack, 1978, 1982). The development of problem-solving skills, especially for young children, involves a transactional process between parent and child. Within this process the emphasis is not on finding solutions to problems, but focuses on the interpersonal act of negotiating the problem-solving process (Shure, 1997; Shure & Spivack, 1978; Shure & Spivack, 1982). In this process, the parent does not try to solve the child's problem, but attempts to convey the message that the child is understood and helps the child to come up with their own ideas for possible solutions. This process tends to take time, but it conveys the message that the child is understood and able to resolve their own problems. As a result the child learns not only to find their own solutions, but also that they are a competent problem-solver who can have a strong influence in the events of their life.

Chapter 5

Early intervention programs for anxiety disorders with children and adolescents

In selecting programs currently operating for children and adolescents, three inclusion criteria were established. First, only programs concerned with anxiety disorder prevention or early intervention were reviewed. Programs concerned with identified anxiety risk factors but which did not measure changes in anxiety levels at the end of the program, were excluded (eg. the School Transition Environment Project, STEP, by Felner & Adan, 1988). Second, only programs which have been demonstrated by empirical studies to be effective in reducing anxiety or risk factors or promoting resilience, were included. Third, programs which did not have a 1-2 year follow-up evaluation were excluded.

The following review summarises some of the preventive programmes that are relevant to the prevention of anxiety disorders. These programs have been given a quality of evidence rating which is based on the NHMRC's rating scheme shown in Chapter One.

Early childhood

Early childhood is an ideal point of prevention for focussing on family risk factors such as attachment, parental psychopathology and family processes. The best approach for this age group is considered to be working with the parents (Bernstein & Borchardt, 1996). Prevention programs for this age group may focus on knowledge of developmental needs including differences in temperament, parental support, fostering secure attachment, and parental acquisition/modelling of coping strategies. Some strategies which may be employed include providing opportunities for parents to learn patterns of interaction that support children's well-being, as well as skills to manage parental stress.

Level II evidence

LaFreniere and Capuano (1997) examined the efficacy of a ***home-visit intervention*** in 43 pre-school children who exhibited anxious-withdrawn behaviour. This study randomly assigned the children to a parental intervention or to a no-intervention control. The intervention aimed to increase the use of positive parenting skills, increase parental sensitivity and enhance attachment security. The project provided information on child development and included booklets on: Development, Behaviour, Security, The Body, and Parental Needs. Additional sessions addressed core skills in parenting, as well as any additional personal or parental concerns in order to alleviate stress within the parent-child relationship. Parents were assisted to build a social support network. Following the intervention, children in the treatment group showed significant improvements in social competence as assessed by teachers. In addition, the mothers in the treatment group showed lower levels of intrusive, over-controlling behaviour and the children showed increased co-operation and enthusiasm in a problem-solving task with their mother. On some measures, such as parenting stress, the control group also showed significant improvements over time.

A study which examined the efficacy of an ***indicated intervention program*** was conducted by Strayhorn and Weidman (1991a, 1991b). Their program, the 'Parent-Child Interaction Training' program targeted low-income parents of pre-schoolers with one or more behavioural problems. Participants were randomly assigned to the experimental or control group. Parents in the experimental group were offered four to five, two-hour group sessions with instruction and role playing on parenting skills and behaviour management. In addition they were trained in individual play session between parents and children. On completion of the program parents reported a significant reduction in children's symptoms of internalising problems, however this decrease was lost at one-year follow up.

Level III-2 evidence

The avoidance of conflicting and ambiguous situations, rather than a direct problem-solving approach, appears to be a defining variable of anxiety-prone families (Barrett, et al., 1996a). Creative and proactive problem-solving strategies, especially

within a social context, are potentially valuable prevention tools and a universal program designed by Shure and Spivak (1978, 1980, 1982, 1988) has utilised this strategy with kindergarten and preschool children. Their extensive program, 'Interpersonal Cognitive Problem Solving' (ICPS), teaches children problem-solving techniques for everyday problems. The program has been utilised with children from 4 to 10 years of age and has been implemented within school settings by trained teachers and in the home environment by trained parents. The program, when added to formal curricula, takes 20 minutes per day over four months.

The ICPS program was evaluated with inner-city mothers, teachers, and four-year-olds. The program was successful in reducing impulsive and inhibited behaviours, with improvements maintained at one-year follow-up (Shure & Spivack, 1982). The program has been utilised and evaluated by controlled trials and both teacher-trained and parent programs have been evaluated (Shure & Spivack 1979, 1980, 1982; and Weddle & Williams, 1993 as cited in Shure, 1997).

Middle childhood

Early intervention programs for children in this age group are based on the efficacy of individual cognitive-behavioural treatment for children with anxiety disorders (Barrett, Dadds & Rapee 1996; Kendall, Flannery-Schroeder, Panichelli-Mindell et al., 1997). In addition, researchers have also provided evidence for the efficacy of group cognitive-behavioural treatment (Barrett, 1998; Flannery-Schroeder & Kendall, in press; Silverman, Kurtines, Ginsburg et al., in press).

Level I evidence

Kendall and colleages (1994; 1997) conducted two controlled treatment studies for children with primary anxiety disorders. These consisted of 16 to 20 CBT sessions for the children based upon Kendall's Coping Cat Workbook (1990) and Kendall's (1994) FEAR Plan (F: Feel good by relaxing; E: Expect good things to happen through positive self-talk; A: Actions which face up to fears; and R: Reward yourself for efforts). Kendall conducted two trials, both yielding similar results. At the end of the first controlled trial (N=47) over 60% of the treatment group no longer met

criteria for an anxiety disorder, and these gains were maintained at one-year follow-up. At the end of Kendall's second randomized clinical trial (N=94) over 50% of children no longer met criteria for an anxiety disorder (with significant reduction in severity for others), compared to only 6% (n=2) in the waitlisted group. Periodic assessments of treatment gains suggested that the eight weeks of only psycho-education was not sufficient, however, when it was followed by active exposure (8 weeks), these two segments together created significant reductions in anxiety disorders.

Based on Kendall's work, Barrett et al. (1996a) researched and designed a treatment program involving both parents and children. This study found that a treatment program including parents and children was superior to one which involved only children. Following treatment, 84% of children in the child and parent treatment group no longer met criteria for an anxiety disorder. At 12-month follow-up this treatment gain increased to 95% of children no longer meeting diagnostic criteria. In comparison, the child-only treatment group showed non-diagnostic status increases from 57% at post-treatment to 70% at 12-month follow-up. Further research by Cobham, Dadds, and Spence (1999) found differences between these two treatment groups when both the parent and the child were anxious.

The results revealed that if both the parent and child were anxious, the treatment gains were significantly less in the Child Treatment than in the Child plus Parent Treatment. However, this difference was reduced at 6- and 12-month follow-ups. Helping parents and children to develop and utilise effective communication and coping strategies is particularly important in alleviating some of the adverse effects of anxiety (Barrett et al., 1996a; Cobham et al., 1999).

Barrett (1998) has also demonstrated that a similar program delivered in a group format was efficacious relative to a waitlist-control condition. Following this group treatment there were significantly fewer children meeting DSM-III-R criteria for anxiety disorders (25.2%) than for children in the waitlist-control condition (74.8%) (Barrett, 1998). The efficacy of group-cognitive behavioural treatment has been supported by Flannery-Schroeder and Kendall (in press), Silverman et al. (in press) and others.

Level II evidence

One indicated intervention project included 1786 children with anxiety problems at risk for anxiety disorders, who were aged between 7 to 14 (Dadds et al., 1997). An intensive screening procedure incorporated parent, child and teacher reports, telephone calls and face to face interviews. The final sample consisted of 128 children who were randomly allocated to either an intervention or monitoring group. Children with severe symptoms or whose parents requested individual help for their child's anxiety, were referred for individual treatment and no longer included in follow-up assessments.

The ten session intervention program was based upon an adaptation of Kendall's Coping Cat Workbook and presented in group format. The sessions aimed to teach children strategies to cope with anxiety. They were conducted weekly for one hour at the child's school in groups of five to twelve children. In addition, parents periodically attended three sessions covering child management skills, modelling and encouraging the strategies children were learning through the program, and how to use Kendall's FEAR plan to manage their own anxiety. The monitoring group did not receive any intervention. Follow-up assessments were conducted at planned intervals.

At the end of the intervention there were no significant differences found between the monitoring and intervention groups. Yet, at 6-month follow-up the intervention group showed a significant reduction in the onset of anxiety disorder symptoms (16% onset), relative to the monitored group (54% onset). More importantly, the intervention successfully maintained program gains at a 2-year follow-up (Dadds et al., 1999). As over half of the at-risk children in the monitoring group developed a full-blown anxiety disorder, middle childhood and early adolescence appear to provide an important 'window of opportunity' for prevention initiatives (Roth & Dadds, 1999a).

Other programs

If one considers anxiety prevention within a broader framework, there are a number of studies that focus on strengthening factors that can protect against the development of anxiety and promote resilience. Although these programs have not

been evaluated in terms of their usefulness in preventing anxiety disorders, they may be useful to consider for further research and some have been shown to reduce anxiety levels. Programs which focus on resilience building include The Rochester Child Resilience Project (Cowen et al., 1996, 1997) and The New Haven Child Development Community Policing Project (Marans et al., 1998).

Adolescence

The prevention and early intervention of anxiety in adolescence has received limited attention. However, the Kendall, Barrett and Dadds studies above included young people up to 14 years of age. Thus, these programs apply to younger adolescents.

Specific phobias and fears

There is fairly strong support for the efficacy of preventive programs for reducing the young persons' level of anxiety when experiencing potentially traumatic events such as painful dental and medical procedures (level II). However, research to date has not investigated the effect of such programs on the development of specific phobias or other anxiety disorders.

The majority of intervention programs for specific phobias, such as dental or medical phobias, have focused on reducing the aversive experiences for the child or adolescent. One method for reducing the effect of the aversive experience is the process of latent inhibition. Latent inhibition refers to the process where an aversive experience is preceded by non-traumatic exposure. For the prevention of dental fears, children who attend non-traumatic dental visits prior to any painful procedure are subsequently less likely to develop dental anxiety than children who do not experience the non-painful pre-exposure (Weinstein, 1990).

Other procedures which have been found to reduce dental anxiety in some studies, include videotaped modelling of a child coping successfully with the dental procedure (Melamed, Hawes, Heiby, & Glick, 1975; Melamed, Weinstein, Hawes & Katin-Borland, 1975). Although there is evidence that videotaped modelling may be a useful preventative process for dental phobias, this process alone may not be sufficient for painful hospital procedures. Research has found that for many

children additional measures may be required to teach the skills necessary to cope with the situation (Peterson & Shigetomi, 1981). Peterson and Shigetomi showed that a combination of training in coping skills plus modelling was superior to modelling or instructions alone in reducing child distress to tonsillectomy. The coping skills taught included use of comforting self-talk, cue-controlled relaxation, and distracting mental imagery.

There are now numerous programs which have been developed to teach coping skills for children undergoing a wide variety of medical procedures. For example, Jay, Elliott, Katz and Siegel (1987) reported the effectiveness of a cognitive-behavioural intervention to reduce anxiety during bone marrow aspirations. This study demonstrated that children receiving modelling plus training in coping strategies showed significantly lower behavioural distress, lower pain ratings and low pulse rates than when they received Valium or an attention control procedure.

Facilitating adjustment to major life transitions and traumatic events

Research has found that traumatic experiences may lead to increased risk of developing an anxiety disorder (Dollinger, 1986; Dollinger et al., 1984; Terr, 1981; Yule & Williams, 1990). Hence, it is important that communities utilise response programs to reduce the negative psychological impact of trauma amongst children. Debriefing has been suggested to be beneficial in preventing long-term adjustment problems in child trauma victims. It involves encouraging children to describe their reactions to the event, and reassurance that their reactions are understood and are a normal response to the traumatic event.

Another approach includes training children in relaxation skills and exposing them to stimuli and memories relating to the traumatic event. It is hypothesised that prolonged exposure to disaster-related cues facilitates emotional processing. This method contrasts with the avoidance of disaster-related stimuli, an approach which is frequently and naturally encouraged by parents (Yule, 1991). The level of evidence for the efficacy of such interventions is very limited. There is some evidence that such interventions may be harmful to some individuals (Brewin, 1998).

Chapter 6

Pragmatic issues

Ethical considerations

If a selective or indicated intervention is chosen, implementers must be aware of the danger of creating stigma by *labelling* 'at-risk' children and adolescents. The positive effects of a program will be negated if children become identified by their teachers and peers as anxious or depressed. Another concern when using selective or indicated intervention models is the risk of *excluding* children who actually are 'at risk' and including children who are not at risk. These errors are very difficult to avoid and careful consideration must be given to determining a process for deciding to which individuals the program will be offered.

Before any component of the program commences, ***informed consent*** must be obtained from parents and children. This can involve sending a letter to parents explaining what the program is about and outlining what participation will entail. A consent form should be attached to this letter and must be signed by a parent and the child and returned to the program coordinator. Participants must be aware that their ***participation is voluntary*** and that they have the right to withdraw from the program at any time.

Participants must be informed that the information that they provide is ***confidential***. This allows participants to provide honest information. Prior to screening, participants must be informed that the only exception to maintaining confidentiality is if they provide information that suggests they are at risk. Inform participants of the process that will be followed in such a situation.

The aim of early intervention programs is to identify and help children who show early signs of an emotional problem. However, it is possible that children will be identified who need ***immediate individual professional help***. Identification of such

individuals may arise from extreme scores on screening instruments or from information provided by children in an interview or during group sessions.

It is essential to have a procedure in place for identifying individuals who are in severe emotional distress, prior to the start of an early intervention program. This is most commonly achieved through screening materials. Using the cut-offs provided in the manuals, determine a score which must be obtained in order to consider a child or adolescent 'at risk'. Back-up support systems to provide interventions for children identified to be in need of individual counselling is an important step in planning a program.

It is important to be clear on the procedures to be taken should a referral be necessary. In many settings these backup support services are readily available and accessible through the school guidance officer or direct referral to a mental health team. However, in some settings, eg. rural/remote areas, organising appropriate back-up support may be more difficult, and needs to be negotiated prior to implementation of the group.

Screening

Screening refers to the process of selecting participants for a prevention program. Screening procedures vary according to the type of prevention program being conducted, the size and characteristics of the potential pool of candidates for a program, and the resources available to run the program. As stated in Chapter 2, there are three types of prevention programs; universal, selective and indicated, and each require different screening procedures. Screening will often be necessary to select those children who are in most need and would benefit most from the program. Table 2 describes procedures for carrying out screening for each type of prevention program. Sufficient information is provided to plan and execute a basic screening procedure.

Evaluating early intervention and prevention programs

There is little point in providing services that do not produce intended outcomes. However, while the need for evaluation is accepted, it is not always clear how to do it.

Table 2. The three main purposes of screening

1. Selecting participants for a program from a large pool of individuals

This screening procedure is always necessary when conducting selective or indicated prevention programs. It is not necessary for universal prevention programs.

Screening for selective prevention programs involves measuring the risk status of individuals. Only those individuals with risk levels over a certain level are included in the program.

Screening for indicated prevention programs involves measuring the level of emotional disturbance in individuals. Only those individuals with signs and symptoms of emotional disturbance over a certain level are included in the program.

2. Identifying children for whom participation in a group would be counter-indicated

This procedure is necessary for universal, selective and indicated prevention programs.

In general this procedure is used to identify children who:-

- would not benefit from the program (e.g. children who do not speak the language used when running the group, children who are clearly unmotivated or resistant about attending the group)
- may find the program overly demanding (e.g. children with an intellectual disability who would have difficulty understanding the material presented)
- are likely to disrupt the group process and, in turn, the effectiveness of the group for other participants (e.g. children displaying behavioural problems, or children with severely limited attentional abilities)

3. Identifying children who may need more immediate or intensive intervention than a group early intervention program

This section is designed to provide a brief overview of the information necessary to evaluate early intervention and prevention programs.

The term 'evaluation' can refer to a variety of procedures, from a large scale controlled trial involving a comprehensive research team, through to a small scale project monitoring attendance rates and requesting feedback from the participants on what they thought of the program. Whatever evaluation procedure is used, the main reason for the evaluation is to determine that the effort in running a program is justified and to continue improving the program. Programs that do harm or are

ineffectual clearly cannot be justified. Similarly, programs that may have established effectiveness in one community (eg. urban schools) may not be appropriate to other groups (eg. rural populations or different cultural groups). If this is the case, it would be difficult to justify widespread implementation of the programs in these communities.

Evaluation is the only way in which to determine whether a program is appropriate and effective, and is the only way of obtaining information on how programs may be adapted for different communities. The following section describes evaluation procedures that are not necessarily expensive or time-consuming to carry out.

Evaluating the reaction of the participants to the program and the wider impact of the program on the community/setting in which it is run

The chances of long-term benefit from participating in a program will be higher if the participants are engaged and attentive to the key concepts and skills being taught. Evaluating participant response to a program can be determined in a number of ways. These include attendance rates, level of engagement during sessions, feedback on each session and participant rating of overall program on completion.

The impact of the program on the wider community is also important. When planning further programs, it would be helpful to know whether parents, teachers or other people in the community have noted positive or negative changes in the children outside the group.

Measuring the level of emotional problems prior to and following intervention

As discussed above, evaluating the effectiveness of a program in preventing the development of a disorder is an important form of evaluation. This form of evaluation involves a rating of the level of emotional distress experienced by the individuals themselves. Usually this involves the administration of self-report questionnaires of anxiety, or questionnaires completed by parents or teachers.

The strongest research design involves a controlled trial. In a controlled trial, a large number of individuals are allocated to one of two groups. One group receives the intervention while the other does not. The level of emotional distress in the two groups is measured before and after the program. A significant reduction in the level

of emotional distress amongst those participating in the program compared to those who did not participate in the program, provides strong evidence of its effectiveness.

Controlled trials can be randomised or non-randomised. A randomised controlled trial, as the name suggests, randomly allocates individuals to one group or the other. This randomisation process increases the likelihood that the two groups are very similar with no reason to expect one group to respond differently to an intervention than the other. In certain situations, randomisation is not possible. For example, when more than one school is involved in a project, it is not possible to randomly allocate individuals from different schools to a program being physically located in one school (as this would involve students having to travel to another school). An alternative is to run the program with students from one school and use students in the other school for the control group. This is a non-randomised procedure and it cannot be assumed that the two groups, from different schools, are similar. However, if the schools have similar characteristics, eg. both are co-educational, state schools located in similar socio-economic communities with a similar cultural mix, and so on, there can be reasonable confidence that the groups will be similar.

While controlled trials are considered the strongest evidence of a program's effectiveness, they are difficult to run. It is important to stress that even in the absence of a control group, measuring changes in the ratings of emotional distress before and after an intervention provides useful information. If programs run in different settings consistently find a lowering of emotional distress following a particular intervention, the cumulative evidence becomes increasingly convincing that the programs are useful.

It is important that those responsible for measuring emotional distress using psychological tests be fully trained in the administration, scoring and interpretation of the psychological tests required for the evaluation.

Understanding the causal mechanisms involved in treatment effectiveness

The theoretical model adopted by early intervention programs stresses the role of enhancing protective factors and minimising risk factors. In order to test the role of mediating factors in protecting individuals from developing an anxiety disorder, it would be necessary to directly measure these factors and show that the intervention

increased functioning in each area, and that the participants who showed the greatest levels of coping and resilience were the least likely to develop emotional problems. Evaluation procedures that measures rates of diagnosis or the extent of symptomology do not provide direct evidence of the role of possible mediating factors.

Unfortunately, there are few good measures of coping, resilience, self-esteem and social functioning. Further, the different ways each of these is expressed in different settings and within different cultural groups makes it difficult to recommend any particular set of measures. Further difficulties lie in the interaction of factors. Stressors in a child's life, such as diagnosed serious illness, divorce or death of a parent, will demand more coping for a child without these stressors in their life.

Demonstrating a prevention effect in reducing the onset of an anxiety disorders

Prevention programs generally refer to the prevention of a diagnosable disorder. A prevention effect is evident when a lower than expected proportion of individuals receiving the program go on to develop a disorder. The complexity of this evaluation procedure is in knowing the proportion of individuals in a given population that would be expected, in the absence of any program, to develop a disorder. Unfortunately this information is not readily available. Thus, for this type of evaluation, a controlled trial is essential. This requires a comparison of the incidence rate of disorder in the group receiving the intervention with a group who did not receive the intervention.

In addition to the expertise in research methodology required to run a controlled trial, such evaluations require specialist training in childhood psychopathology and in the specific techniques required to administer diagnostic interviews. The design and implementation of a controlled trial requires a major research effort. In general, this type of evaluation requires a large commitment from a research team and financial backing, usually in the form of a research grant, to ensure success.

Understanding process issues in implementing the programs

Group process is extremely important in the success of a program. An almost infinite number of variables can be identified that determine how well a particular session goes and the impact of that session on the participants of a program. These include the nature of the group selected, including the proportion of males and

females, the mixture of outgoing and shy children, the age of the participants and the cultural backgrounds of the participants. Other variables include the level of experience and the professional background (psychologist, social worker, teacher, guidance officer, psychiatrist) of the group leader and wider community influences such as the support and participation of parents, teachers, consumers and carers.

Some of the general procedures for administering a questionnaire for screening or evaluation are contained in Appendix 1. Steps in conducting a screening or evaluation session are outlined in Appendix 2.

Chapter 7

Steps in planning and implementing early intervention programs

After identifying the need for an early intervention program, the availability of efficacious programs and, the ethical issues which need to be considered, the next stage would be planning and implementing the intervention. The steps involved in planning and implementing an early intervention program can be summarised by 11 steps.

Step 1. Determine the type of early intervention program to be implemented.

The type of prevention program implemented has implications for screening and the level of problems participants will bring to the group. It is therefore important in the early stages of planning a group to be clear about the type of program to be conducted. From Table 1 in Chapter 2, identify the most appropriate type of prevention program.

Step 2. Gain permission and backing from relevant authority to run the program in your school or other setting.

Obtaining permission and the backing of relevant authorities to run a program is a vital first step. Running a program involves cost in terms of release from other duties, organising participants to attend sessions, photocopying materials and so on. Inform relevant people in your setting of the importance and aims of early intervention.

Step 3. Gain consent from the parents of all individuals likely to be included in a screening procedure, or recruited into a program without screening.

Consent from individual children or adolescents and their parents is an essential first step in running a program. Both the screening and evaluation procedures and the content of the group can elicit personal information about children and their families. It is important that all concerned are clear on how such information is to be used.

Ask all potential participants who will be included in a screening procedure or group (if no screening is being conducted) and their parents to complete a consent form.

Step 4. Establish procedures to increase a positive focus on the program and minimise any possible stigmatisation of the children involved.

The manner in which the program is described to young people, their parents and other professionals will influence the willingness of these groups to participate or support the program. If screening procedures are to be used to recruit participants, it is important to consider how this can be done in a way that makes those selected feel pleased, without disappointing those not selected. Consider how best to describe the program to maximise the willingness of young people to participate.

Step 5. Set up back-up support systems in case any young people are identified, through screening procedures, to be displaying serious emotional problems which require immediate individual attention from a qualified mental health professional.

An important step in planning an intervention program is setting up back-up support systems to provide assistance for children identified to be in need of individual counselling. It is important to be clear on the procedures to be taken should a referral be necessary. In general, a meeting with the young person involved and ideally, their parents, should be arranged to discuss the results of the screening and the advantages of a referral for individual or family counselling.

In many settings these backup support services are readily available and accessible through the school guidance officer or by direct referral to a mental health team. However, in some settings, such as rural/remote areas, organising appropriate back-up support may be more difficult.

Liaise with local mental health teams. Inform them of the program, when it will start and finish, the number of children that will be involved in the program. Obtain agreement from the mental health team/worker that they will act as a backup support service and document the referral procedures to be taken if a child is identified as having serious emotional problems.

Step 6. Consider how best to increase a positive attitude to the program amongst other professionals, parents and young people in your setting. Consider potential obstacles to the success of the program and procedures for overcoming these obstacles.

Informing other staff in your setting (eg. teachers in a school, other health workers in a mental health clinic) is helpful in increasing support for the program. Organising to present a brief talk at a staff meeting and inviting questions, will be helpful in gaining acceptance and will increase the chances of the program being successful. Inviting parents to attend a presentation describing the program would also be helpful in maximising support for the program.

Allocating time to consider obstacles to running the program would be useful at this stage. Each setting is likely to have different obstacles. While there can be no set formula for dealing with these problems, anticipating potential problems and developing an action plan in advance increases the likelihood that they can be dealt with.

Step 7. Identify professionals with relevant expertise and personal characteristics to implement the programs and provide training.

Professionals running programs with children should have experience working with groups of young people. Knowledge of the content of the program is vital. In some cases, it is required or recommended by the program developers, that a specific training program is undertaken by those who will be involved in the implementation process. For example, it is recommended by the developers of the 'Friends' program (GEIP), that potential implementers of the program undertake the GEIP training program to acquire skills in the content of the program and group process.

It is important for selected group leaders to organise ongoing supervision, either from the program developers or from a local professional with relevant experience. It is best to select professionals with experience in working with young people in a group format.

Step 8. Plan and execute screening.

Screening is a procedure for recruiting participants into a program based on pre-established criteria for inclusion and exclusion. That is, on the basis of the selection procedure, individuals are either invited to participate in the group, or are excluded.

Indicated and selective prevention programs set criteria for inclusion based on risk factors or level of emotional problems. All programs, including universal programs, can set exclusion criteria. These may vary depending on the setting in which the program is to be run and on the resources available.

Screening also functions to identify individuals who may require more help than can be offered by the program. Specifically, individuals with very high levels of emotional distress, individuals reporting family dysfunction that suggests there is a child protection issue or individuals reporting suicidal ideation or other forms of self-harm, should be referred for specialist help.

- Before proceeding, exclude individuals for whom consent was not given to participate in the program.
- Determine the criteria for inclusion into the program.
- Determine the criteria for exclusion from the program.
- Select reliable and valid screening instruments that allow inclusion and exclusion criteria to be measured.
- Carry out the screening procedure with all individuals in the pool of potential candidates for the group from which consent to participate has been obtained. On the basis of the results of screening, invite the selected individuals to participate in the program.
- Refer individuals identified as experiencing high levels of emotional distress, reporting abuse, or reporting self-harm or suicidal ideation to specialist services. (Ensure that these services are informed of their role in providing a back-up service prior to the screening stage).

Step 9. Plan and execute pre-intervention evaluation.

Evaluation can vary in complexity and varies according to the questions being asked about the program. Evaluation and screening can overlap in so far as certain screening instruments may also provide baseline (pre-intervention) measures of aspects of psycho-social functioning, emotional wellbeing, family functioning and so on. While there may be an overlap, it is important to be aware of the differences. Whereas

screening is used to select subjects and identify individuals with serious problems that cannot be met by the program, evaluation, at its most simple level, is a procedure to determine whether the running of the program in a particular setting was worthwhile and justified. Determine the level of evaluation most suited to your setting and the evaluation procedure to be adopted, then carry out the pre-intervention evaluation with individuals selected to participate in the program.

Step 10. Plan and run the program.

Running the program is, of course, the major objective. Successful running of a group requires group leaders to be trained in the content and process of the group program and practical issues to be fully addressed. Obtain, if any, the manuals necessary for running the program and run sessions according to the guidelines in the manual.

Step 11. Carry out evaluations of the program.

An important aspect of running a program is the ongoing evaluation of each session. There are several reasons for evaluating each session. First, after the full program has been run several times a review of the program may show that a particular session does not work well in a particular setting and may require modification. Second, evaluation at the end of a session provides immediate feedback on the participants' reactions to a session. It is important to use this information to plan the next session, particularly if there has been a generally negative reaction to a particular session.

In addition to feedback from the participants, reviewing and evaluating a session can include professional supervision for the group leader. This supervision provides an opportunity to reflect on the group process and consider strategies for the next session. Professional supervision can be important for emotional support and to discuss concerns over individual participants who may be reporting or displaying problems that may need to be addressed on an individual basis. See Chapter 6 for the methodologies of further evaluations.

Conclusion

In this document, the need for early intervention and prevention programs for anxiety disorders in young people was reviewed. It was found that anxiety disorders, if left untreated, may persist (Dadds et al., 1999; Keller et al., 1992; Pfeffer, Lipkins, Plutchnik & Kizruchi, 1988), lead to adult psychological problems (Pollock, et al., 1995), and may be a risk factor in the development of comorbid child psychopathology, such as mood disorders and behavioural problems (Bell-Dolan & Brazeal, 1993; Cole, Peeke, Martin, Truglio & Seroczynski, 1998; Strauss, Last, Hersen et al, 1988). Further, anxiety has been associated with general social problems such as negative self-image, dependency on adults in social situations, comparatively poor problem-solving skills, unpopularity and low rates of interaction with peers (Kashani & Orvaschel, 1990; Messer & Beidel, 1994; Panella & Henggeler, 1986; Rubin & Clark, 1983; Strauss, Frame & Forehand, 1987). Following on from the identification of the need for early intervention and prevention programs for anxiety disorders in young people, the risk and protective factors were examined, and programs which have been designed to prevent anxiety or anxiety disorders were reviewed. After identifying the need for an early intervention program, the availability of efficacious programs, and ethical issues, planning, implementation and evaluation of interventions were considered.

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Appendix 1

Administering a questionnaire for screening or evaluation

This appendix covers some of the general procedures for administering questionnaires to children in a school setting. As some intervention programs, particularly those for young children, work with the parents, the information provided may be adapted for administering questionnaires to parents. The questionnaire's manual will outline specific instructions for administration. It is important to read the instructions for each instrument carefully and ensure that they are administered accordingly.

Select a suitable environment

Testing must occur in a well-lit room with minimal distraction (e.g. noise from outside). Ensure that no interruptions will occur during the testing session. For group testing with children and adolescents, the room must be set up in the same way that it would be for an exam, so that students cannot see each other's answers. Each individual must have a desk and chair to ensure comfort as the testing process may take an extended period of time.

Provide information

Before testing commences, inform the students of the nature and purpose of the questionnaires. Explain that the information that they provide is confidential, that this is not an exam and that there are no right or wrong answers. Explain to the group how important the information that they are providing is, and ask them to answer as honestly as possible. Ensure the group that they can ask questions at any point. Inform the group that they can obtain feedback about their questionnaires if they like, and explain how to do this.

Group size

The group must be small enough that testing conditions can be maintained. It is often most convenient to conduct testing sessions in class groups.

Qualifications of administrator

it is the legal and ethical obligation of test administrators to ensure that they have the appropriate qualifications and experience to administer a test. If your organisation does not employ anyone with the appropriate qualifications, it may be necessary to buy in such services.

Informed consent

To be able to give informed consent, people must be made aware (in language that they understand) of the reasons for testing, the type of tests to be used, as well as details of what testing information will be released and to whom. Prior to testing, ensure that all consent forms have been collected.

Confidentiality

Prior to testing, remind the group that their answers are confidential and that other students, teachers or their parents will not see what they write. This is one way of increasing the likelihood of obtaining accurate data. Explain the conditions of confidentiality, and the circumstances under which other people would be informed, e.g. if the information provided indicated that the individual may be at risk of harm.

Assisting during testing

Some instruments allow oral administration if the examinee has difficulty reading the material. It is common for children and adolescents to have difficulty understanding some words. In this case, define the word. If it appears that a number of students are having difficulty with a particular word, it is useful to display a definition (e.g. on whiteboard). This decreases the number of distractions and accounts for those students who may not understand the word, but are too embarrassed to ask. If a student does not know what answer to give for a question, do not assist them with the answer. Explain that they should choose the answer that is most true for them. Remind them that they should answer the questions honestly and that there are no right or wrong answers.

Scoring questionnaires

When scoring questionnaires it is necessary to refer to the questionnaire's manual.

Data entry, analysis and storage

For evaluation purposes, data can be entered and analysed using a statistical computer package, such as Statistical Package for the Social Sciences (SPSS). The completed questionnaires must be stored for seven years. Individual names should be coded into an identification number to ensure confidentiality. Keep a list in a locked file cabinet of the code for each individual, in case a questionnaire has to be accessed at a later date. Any data that contains identifying information must be stored in a locked area, where it cannot be accessed by others.

Repeated administration

A variety of sources must be used when measuring anxiety, whether it be for screening or evaluation purposes. Using a single administration of a self-report inventory may overestimate the proportion of anxious individuals, and a repeated administration may overcome this.

Parent/ Teacher ratings

Some symptoms of anxiety may only be evident in certain contexts. Using a variety of sources of information reduces the risk of failing to detect children who are at risk for an anxiety disorder.

Appendix 2

Conducting a screening and/or evaluation

Pre-assessment introductions

- Welcome to the Program, and thank you for agreeing to take part in our project.
- I am / We are ....(introduce self - name, position etc.).
- In session 1 of the program, you'll hear a lot more about what we're going to be doing together.
- Today, we are particularly keen to find out about the ways that young people think and feel about themselves, their family life, and how they cope with day to day or difficult situations.
- I am / We are going to ask you to fill out some of the questionnaires for the project, which will give us more information about the way that you think and feel about things in your life.
- Because we are interested in how you think and feel, there are no right or wrong answers to these questions.
- It is important that you choose the answers that best describe you.
- When you fill out these questionnaires, there are three very important things to remember.

Discussion of important assessment issues

Confidentiality

- All information you give us is totally confidential.
- That means we won't tell anyone about how you fill in the questionnaires.

- We are asking for your names and other information on the front cover of the questionnaire booklet, but this page will be removed and a number will be written on the booklet instead.

- There is one circumstance, however, where we might need to speak to someone else about the information that you have given us.

- If there is something in your questionnaire that suggests you are in a situation that is harmful to you, we feel it is important to advise your (eg. school counsellor / guidance officer) about this and he/she will then be able to work with you to help you solve the problem.

Privacy

- Because some of the questions may be a little personal, and because we want your own personal responses, not the person's next to you, we will ask you not to talk at all during this session.

- This session will be like in exams at school, where every person works on their own work and doesn't talk to any one else.

Honesty

- Again, thank you for participating in this program.

- The information you are giving us is extremely valuable.

- For this reason, it is very important that you be as honest as you can in the way you answer the questions.

- It is also important that you give only one answer to each question.

- If you are having any trouble making a choice between two answers, don't put a mark in the middle, but choose the response that you think is true for you most of the time.

Invitation for questions

- You will have the rest of this session (... minutes) to complete the booklet, so just work carefully through at your own pace.

- Does anyone have any questions before we begin?

Commencement of assessment

- Hand out assessment booklets.
- Maintain silent working conditions.
- Answer questions individually as they arise.

Completion of assessment

- Check each booklet to ensure all pages are completed
- Collect all booklets at the end of designated time.


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